



Perfectly Clear
By Athentech Imaging



Perfectly Clear

PHOTOSHOP PLUG-IN USER MANUAL

January 2011, Version 1.5.0

Congratulations!

You will soon be processing your photos through the World's fastest and most advanced automatic image correction science available on this planet!

Perfectly Clear is award winning technology with over 10 patented corrections and more than 10 years of scientific research¹, The benefit is RealColor Photography® - accurately beautiful corrections - ensuring that your memories are perfectly preserved.

Our mission is to save you significant time while producing outstanding quality. Automatically.



² Eight out of ten times, in a blind test, Professionals using Photoshop selected the Perfectly Clear instant correction over their own work, which averaged 10 minutes to enhance.

Why Perfectly Clear?

Proven Results - Perfectly Clear is powering the automatic corrections of over 85,000 photo kiosks, 2,500 printers, countless online sites and labs, and you've likely used Perfectly Clear if you've ever printed to Walgreens, Black's, Tesco, photobox, photoworks, or Olympus.
(www.athentech.com/Our-Licensees.html)

Real Color Photography® - Our corrections are accurately beautiful. This means that your blue eyes should be blue, green grass should be green, and your purple bride's maid dress should be purple!

Backed by Science - Our scientific approach mimics the physics principals of light - the same way the human eye captures light. We correct each pixel independently - it is as if your 21 megapixel photo was taken with 21 million separate apertures. (www.athentech.com/Science.html)

Saving you time - We gave Photoshop experts 10 different images and asked them to manually correct them. On average, this took 5-7 minutes per photo. The original photos were then processed through Perfectly Clear - average time 2 seconds per photo. We then asked which photo was preferred - 8 out of ten times the Perfectly Clear photo was preferred!

Recognized - Perfectly Clear has been granted several awards and accolades for the value it adds to photographers by saving them time and making their editing effortless and much less time consuming.

¹ Perfectly Clear Patents: United Kingdom Patent No. 2363933, European Patent No. 1177678, U.S. Patent Nos. 6677959 & 6633684, Singapore Patent No. 83972 & 94006, HK 1048213, New Zealand 523251 & 514714, Australia 771979, Mexico 233930 & 227042, Canada 2368544, China ZL 00808690.7, India 217854, Japan 4175461, Korea 572444. FotoNation Red-Eye Patents: US 6,407,777 and US 6,042,505 and US 7,042,505. Other patents pending for Perfectly Clear, FotoNation, Tribeca Imaging and Stoik Imaging.

Inside This Manual

Chapter 1	
What's new in version 1.5.0	5
Chapter 2	
Minimum System Requirements	7
Chapter 3	
How do I install the software?	9
Chapter 4	
Let's start correcting!	22
Chapter 5	
Workflow	25
Chapter 6	
The Power of Presets	27
Chapter 7	
Fine Tuning	32
Chapter 8	
Batch Processing	42

Chapter 1

What's new in version 1.5.0

1. Now available for Mac

Please note that both the Windows and Mac have the identical features.

2. 64 bit compatible

You can now run in CS4 64 bit version (Windows only since Adobe doesn't have CS4 in 64 bit for Mac) and also CS5 (windows and Mac) 64 bit. When you do this, all of our corrections will be operating with 64 bit depth.

3. Compatible with Photoshop CS5

4. Supports layers

Now you can apply Perfectly Clear to any layer.

5. You can now apply Perfectly Clear to a select part of your photo

Now you can choose a selection of your photo (let's say your eye for example) and only Perfectly Clear the selected area. Please note that the entire image will appear in the plug-in window (and appear corrected), but only your selected area will be Perfectly Clear when you press the "Okay" button.

6. Smarter Sharpening

- Ensures the proper amount of sharpening is applied regardless of your image size. You now have double the strength to adjust (New range: 0-200 instead of 0-100)

7. Color Space fix

Your photos will now be displayed with the proper and identical colors in both Photoshop and our Plug-in window.

8. Now installs correctly on Elements 8

Will now install in proper folder location for Elements 8 (the prior build on some Windows 7 machines installation would occur in incorrect folder) and "Perfectly Clear" will appear under filters (with prior builds it sometimes wouldn't appear under Filters until "PCPlugin.8bf" was double clicked).

9. More efficient use of memory.

Will no longer crash Photoshop when running low on RAM for large (over 30 megapixels) images.

10. Plug-in window now re-sizable

Simply click and drag on any corner of the window to re-size.

11. When in trial mode, the trial reminder window will only pop up once per day

(instead of once per use). This makes batch processing easier.

12. Entire Plug-in window now visible on wide angle monitors (1280 X 800).

13. Efficient shortcuts saving you even more time

- i) Slider bars can now be adjusted by using your mouse scroll wheel (if your mouse has this),
- ii) the size of your plug-in window will be remembered at next use so you don't have to re-size every time,
- iii) "ctrl" (Win) "command" (Mac) "+" / "-" shortcut keys for zooming.

14. An enhanced interface

This new look is beautiful and intuitive.

Note: all of your custom presets will be automatically migrated over when you install the latest version

Chapter 2

Minimum System Requirements

- Windows O/S: Windows XP, Vista, Windows 7
- Mac OSX Leopard, Snow Leopard
- Photoshop CS3/CS4/CS5
- Elements 8, 9
- 2 GB of RAM
(4 GB recommended)



Perfectly Clear works with both 8 bit and 16 bit images, 32 and 64 bit processors.

For raw images, Perfectly Clear uses the 16 bit image passed to it and processed with Adobe Camera Raw.

Chapter 3

How do I install the software?

Free trial and buying the software

1. Installation

Prior to installation, please ensure the image editing application that will serve as the host of Perfectly Clear is closed. Please also close any other open applications for the duration of the installation process. To begin the installation process, double-click on the installer provided either on your Perfectly Clear CD or from the download process from the Athentech (www.athentech.com) web page.

The installer will walk you through the various steps necessary in order to install Perfectly Clear into your image editing application of choice. On Windows, you may get a message similar to the one below, just press “Run” or “Yes”.

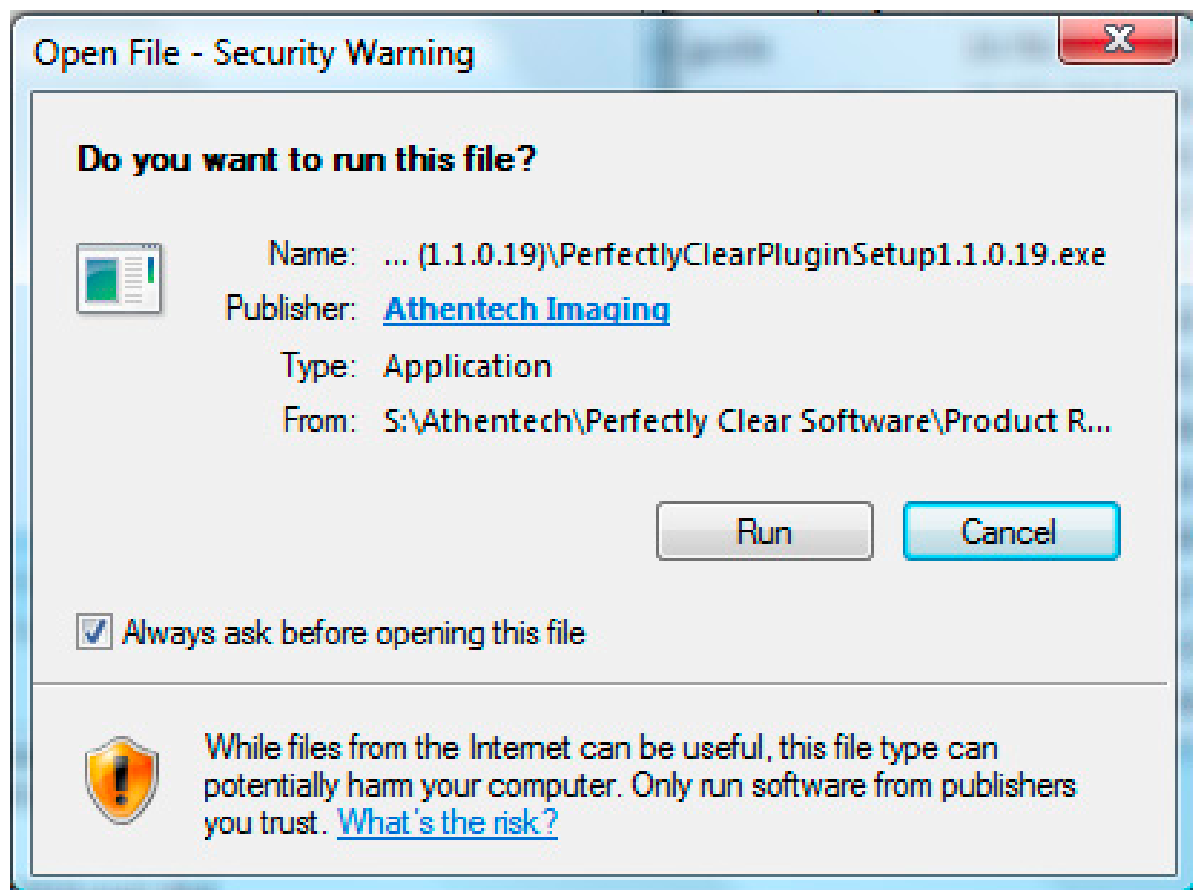


Figure 1 - Run Application (Windows)

After accepting the End User License Agreement, the installer will automatically attempt to locate all installed versions of Adobe Photoshop or Adobe Photoshop Elements, and then display the location where the files will be installed.

If the installer was unable to locate a version of Adobe Photoshop or Adobe Photoshop Elements, or if you are using a different image editing application, you will need to manually locate the appropriate plug-in installation location.

For Adobe Photoshop or Adobe Photoshop Elements, the install location is as follows:

For Windows, this is (one or both depending if you are running 64 bit):

C:\Program Files\Adobe\Adobe Photoshop\Plug-Ins

C:\Program Files (x86)\Adobe\Adobe Photoshop\Plug-Ins

For Mac this is:

Macintosh HD : Applications : Adobe Photoshop : Plug- Ins : Filter

2. Launching Perfectly Clear Photoshop Plug-in

Once you have Photoshop loaded, select “Athentech Imaging/Perfectly Clear” from the Filters menu. See **Figure 2**.

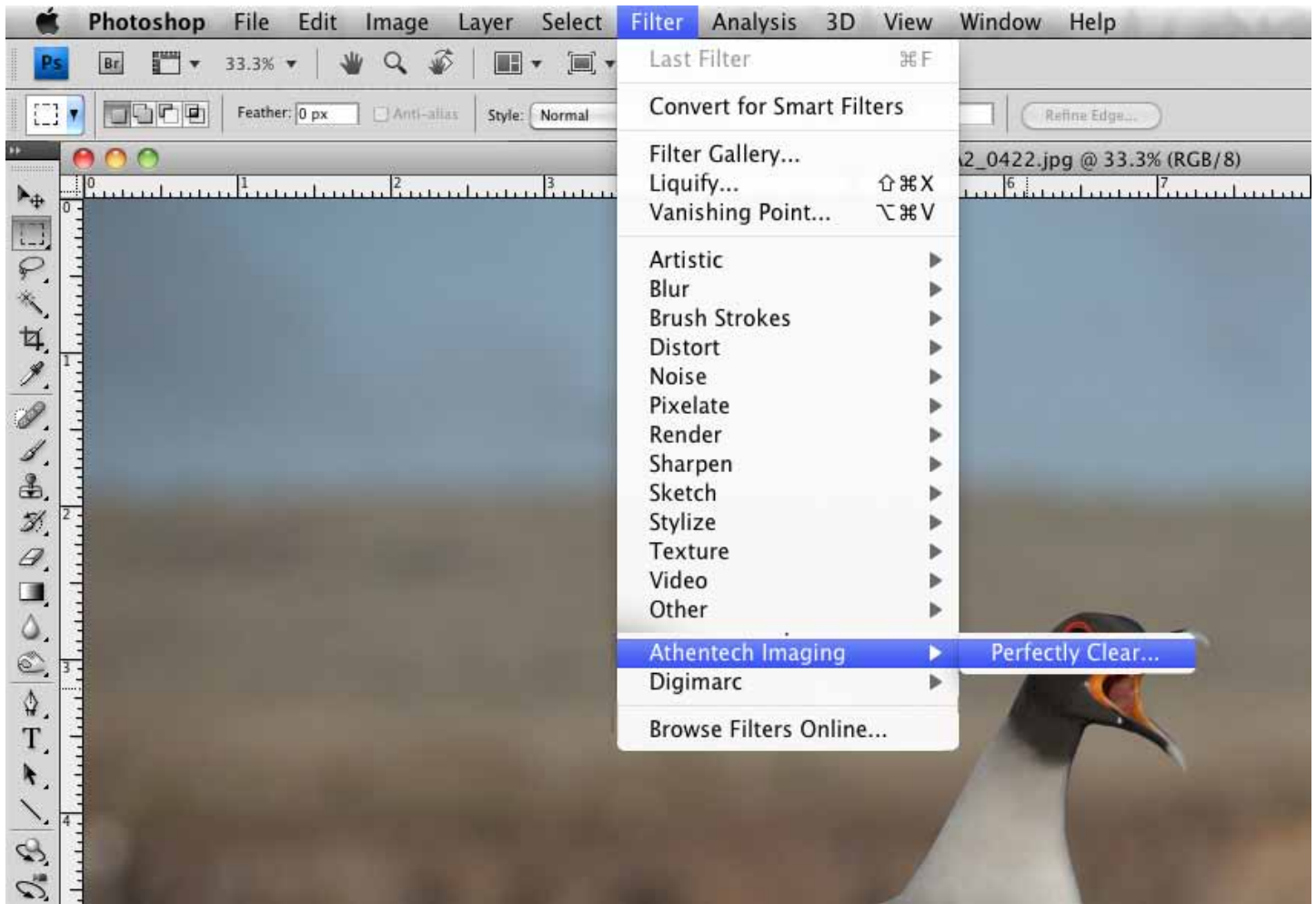


Figure 2 - Launching Perfectly Clear

3. Running in Trial Mode

While in trial mode, the first time each day you run Perfectly Clear Photoshop Plug-in the following window will appear:



Figure 3 - Licensing Window (Windows)

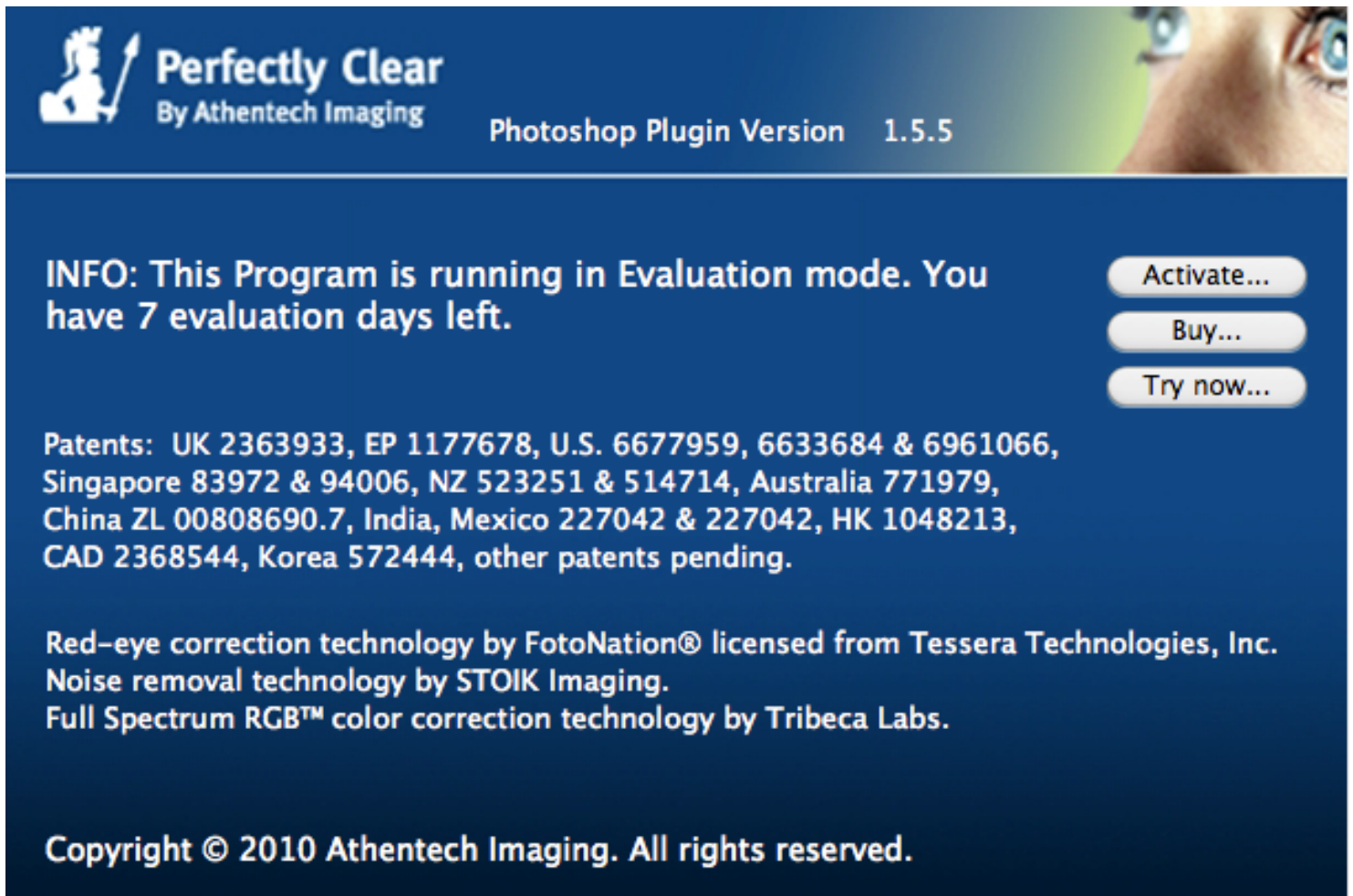


Figure 3 - Licensing Window (Mac)

Buy Perfectly Clear Photoshop Plug-in -

This will take you back to our website. (More details later on in this chapter.)

Activate Perfectly Clear Photoshop Plug-in -

This option will be used once the software has been purchased and you have an activation key

Trial Perfectly Clear Photoshop Plug-in for 30 days -

Choose this to trial our software. The trial is fully functional with no restrictions or watermarks.

4. Buying Perfectly Clear Photoshop Plug-in

To purchase a license key, simply choose the “Buy Perfectly Clear...” button. This will redirect you to our website where you can purchase Perfectly Clear Photoshop Plug-in. You have the convenient options of using any major credit card or PayPal.

****You MUST use a valid email to purchase Perfectly Clear as your activation key will be emailed to you.**

5. Activating Perfectly Clear Photoshop Plug-in

Once you have your license number/activation key (you will receive an email if you purchased online, or it may be attached to you CD or box if you made a physical purchase) simply choose `Activate Perfectly Clear...` **(Figure 3)**, enter your license number into the open box and press the “Activate” button **(Figure 4)**. The software will connect to the internet to activate.

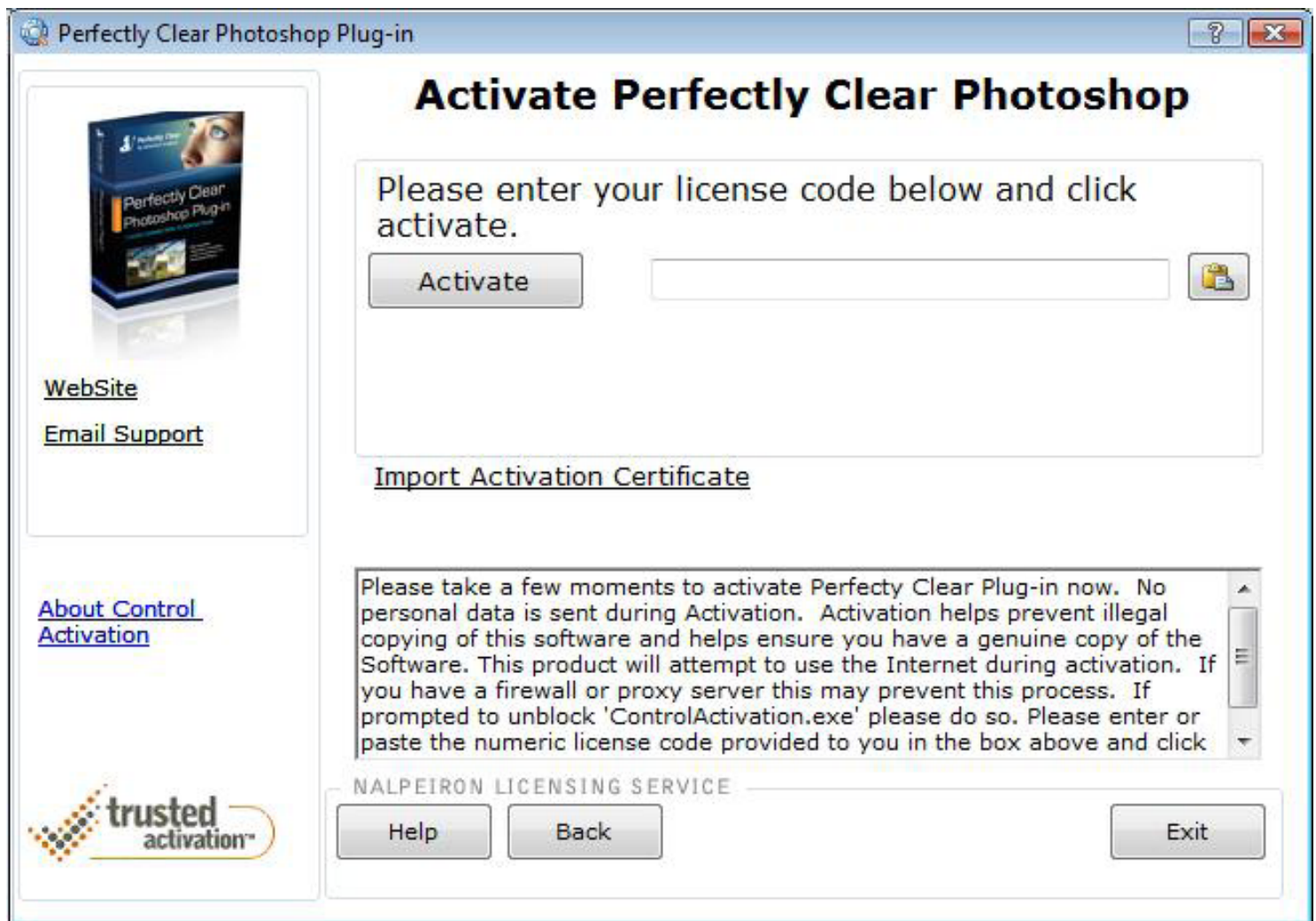


Figure 4 - Activating (Windows)



Figure 4 - Activating (Mac)

From time to time firewalls will block the activation process. If this happens to you please follow these steps to bypass this problem.

- i) Click on “Import Activation Certificate” (**Figure 4**) or the “Import Certificate” button on a Mac, this will bring up another dialog box (**Figure 5**).

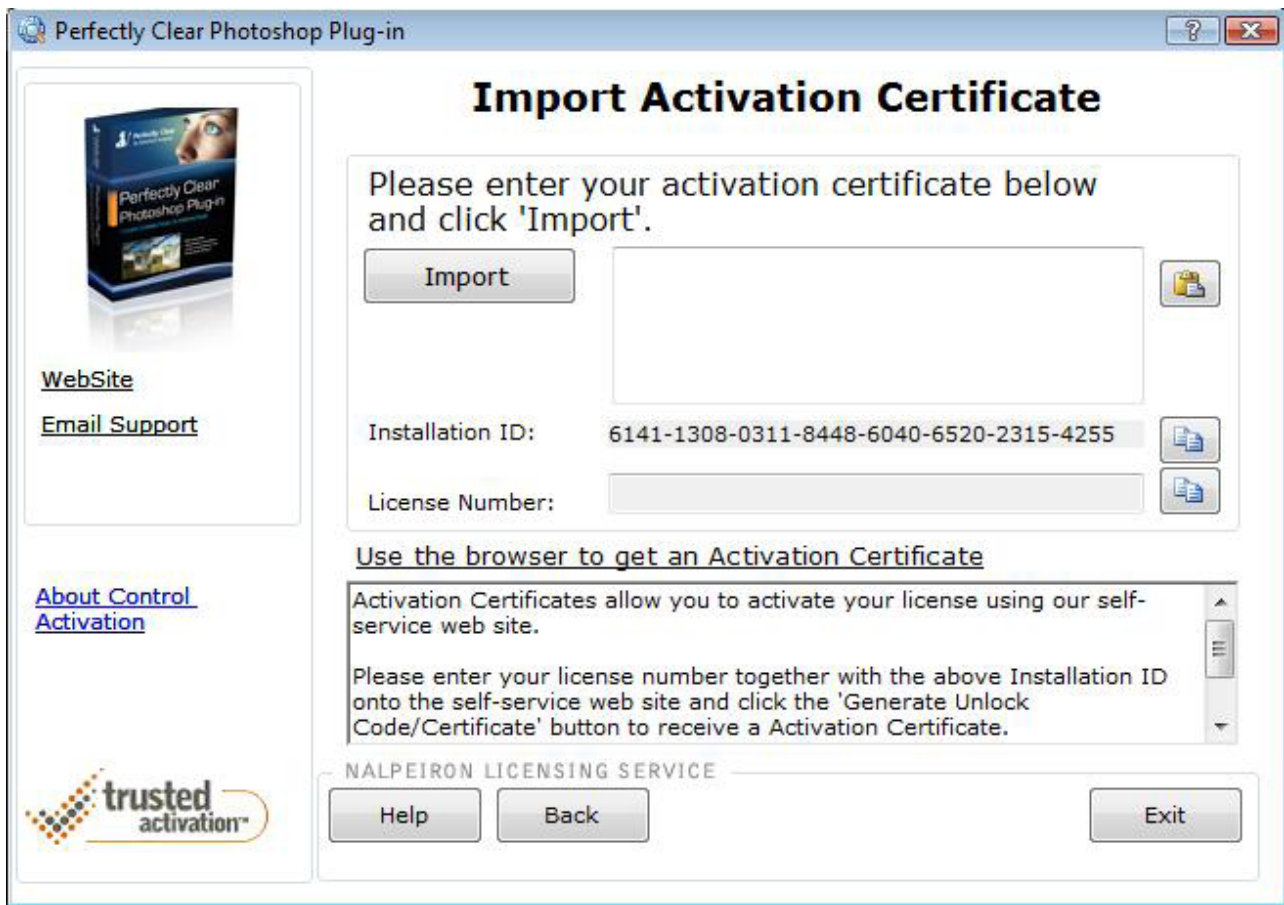


Figure 5 - Importing Activation ID (Windows)



Figure 5 - Importing Activation ID (Mac)

- ii) Click on “Use the browser to get an Activation Certificate” or “Activate on Website” (Mac). This will bring you to Nalperion Trusted Activation website (**Figure 6**).

NALPEIRON
trusted activation™

» [View your activations](#) » [de-activate license](#)

**Welcome to the
software activation center**

Please enter the Installation ID and the License Number the customer received with the product.

INSTALLATION ID **LICENSE NUMBER**

☐ I have read and agreed to the [terms and conditions](#)

[Generate Unlock Code/Certificate](#)

NALPEIRON
software value acceleration™

© Copyright 2009 - Nalperion | [terms and conditions](#)

Figure 6 - Trusted Activation Website

- iii) Copy the Installation ID and License Number (these may be populated on screen, if not then please see your original email) as you see in **Figure 5**.
- iv) Paste those numbers into the website (Figure 6), review and agree to the terms and conditions.
- v) Click on “Generate Unlock Code/Certificate”.

vi) Copy and paste the Unlock Code (**Figure 7**) into the box provided in (**Figure 5**).

vii) Click Import.



Figure 7 -Unlocking Code

6. Registration

Now that Perfectly Clear Photoshop Plug-in is active on your computer you have the option of registering your newly purchased software. This registration process is optional but there are some powerful management benefits to registering. The registration box (Figure 8) pops up after you accept the registration key, asking for your name, address, email and a few other details, most boxes are optional.

Once you've registered you create a login name and password and with that you are able to login on the website. There you can manage License Keys you've purchased, see how many actions/de-activations have been done.

If you decide to not use this registration feature please go to the next step.



The screenshot shows a Windows-style dialog box titled "Perfectly Clear Photoshop Plug-in". The main heading is "Registration". On the left side, there is a small image of the software box, followed by links for "WebSite" and "Email Support". Below these are links for "About Control Activation" and a "trusted activation" logo. The main area is divided into two sections: "Already Registered?" and "Not Registered?". The "Already Registered?" section prompts the user to enter a "Username" and "Password" and includes a "Register" button. The "Not Registered?" section prompts the user to enter registration details by clicking "Register Now". At the bottom, there is a section for "NALPEIRON LICENSING SERVICE" with "Help", "Back", and "Exit" buttons.

Perfectly Clear Photoshop Plug-in

Registration

Already Registered?
Please enter your Username and Password below and click Register.

Username:

Password:

Not Registered?
Please enter your registration details by clicking Register Now.

NALPEIRON LICENSING SERVICE

[WebSite](#)
[Email Support](#)

[About Control Activation](#)



Figure 8 - Registering

7. Deactivating/Transferring your License Key

After you have activated and registered your License Key (registration optional) you can deactivate if you so choose. The main purpose of deactivating would be to transfer your license to another computer.

In order to do this start up Perfectly Clear Photoshop Plug-in and click the “about” button then the “License” button, simply press the “De-Activate Perfectly Clear...” option and follow the on-screen instructions (Figure 9). Make sure you read the conditions of de-activating your license and choose “yes” before clicking “continue”.

License information, including your license key, is available at any time simply by clicking the “About” button once you’ve launched Perfectly Clear Photoshop Plug-in.

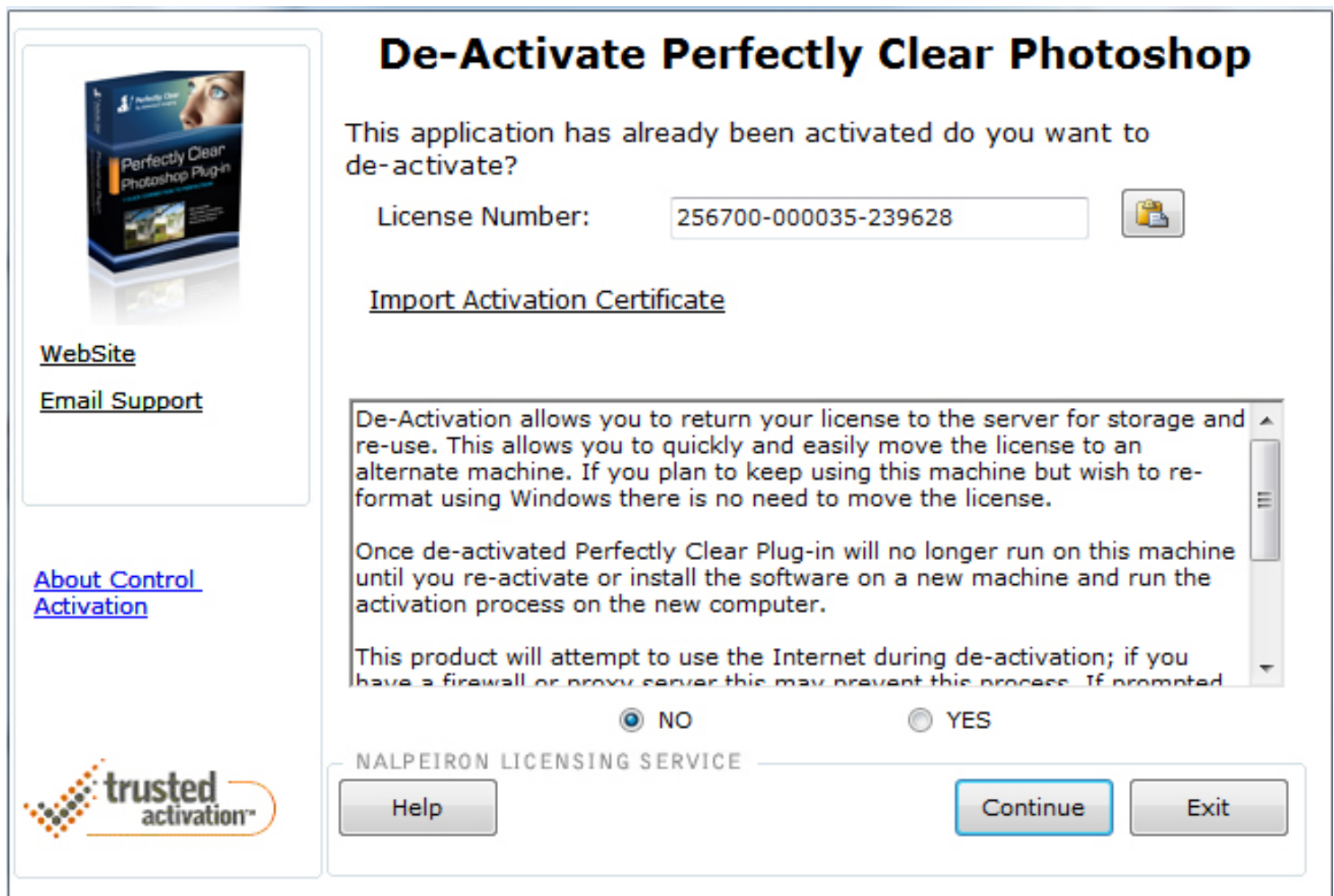


Figure 9 - De-Activating - Windows



Figure 9 - De-Activating - Mac

Chapter 4

Lets Start Correcting!

How to use the software

To launch the Perfectly Clear Plug-in, open a photo in Photoshop or Elements and then select “Athentech Imaging/Perfectly Clear” from the Filters menu.

Once Perfectly Clear Photoshop Plug-in is launched, it will automatically process your photo using your last preset selected (if this is the first time you’ve used Perfectly Clear, then it will use the default preset).

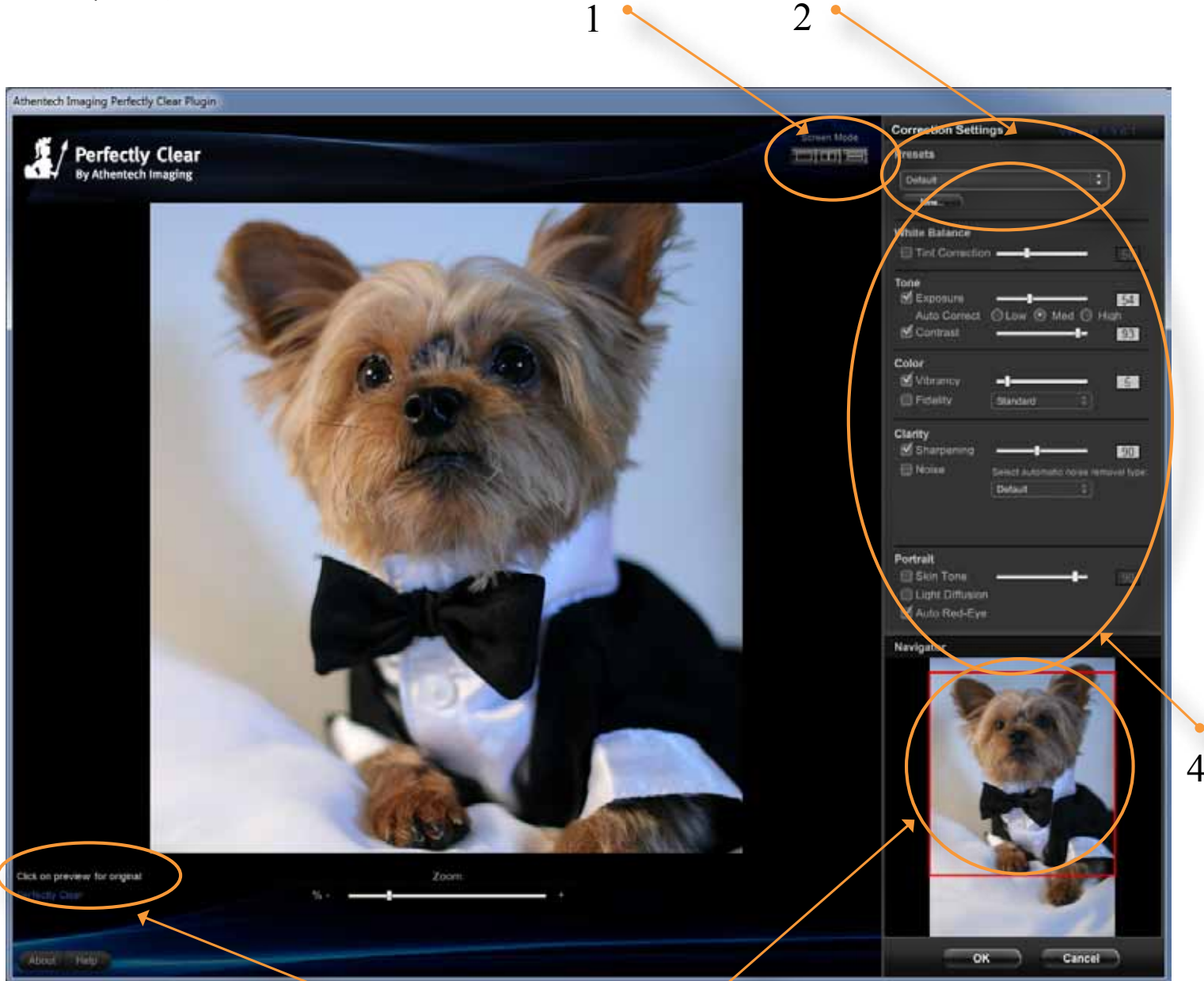


Figure 10: Snapshot of Perfectly Clear Photoshop Plug-In and key features

1. Select your View

There are 3 different views as indicated by the toggle buttons in the upper right :

A) Full Preview Window - to toggle between the original and corrected photo, simply mouse click and hold anywhere on the photo. Underneath the photo on the bottom right you will see an indicator showing you which photo you are viewing.

B) Side by side - press the 2nd button to show the original on the left, and the correction on the right

C) Top / bottom - press the 3rd button to show the original on the top and the corrected photo on the bottom.

2. Choose your preset

Perfectly Clear comes with 6 pre-defined presets. When you launch the plug-in, your photo will be corrected with the last preset used. To change, simply choose another preset from the drop-down menu. You can also create as many custom presets as you desire. More information on each preset is outlined in Chapter 4.

3. Zoom to see the details and quickly navigate

To see the details of your image, simply slide the zoom slider to the right for more details. The area that you're viewing is displayed in the red box in the Navigator window in the bottom right. You can move the image around by:

- A) Mouse click and hold, then drag the large preview photo around
- B) Moving the red box in the Navigator window around
- C) Clicking anywhere in the Navigator window.

4. Fine tune your correction

The right panel contains all of our algorithms. Simply toggle ON or OFF by checking the box, or adjust a slider bar to see the effect of each algorithm. More information on each algorithm is available at www.athentech.com.

So really, that's all there is to better pictures, effortlessly!

Useful tips

1. Perfectly Clear Window re-sizeable

To adjust the viewing size of the Plug-in window, click the bottom right corner and drag to re-size. This size will be remembered for the next time you launch.

2. Applying Perfectly Clear to a selection

You can choose a selection/portion of your photo in Photoshop and Perfectly Clear will only be applied to the selected area

3. Short-cut keys

- i) Slider bars can be adjusted using your mouse scroll wheel (if your mouse has this),
- ii) "ctrl" (Windows) / "command" (Mac) "+" / "-" shortcut keys for zooming

Chapter 5

Workflow

Where and when to use Perfectly Clear with your images

Perfectly Clear is designed to save you significant time in your editing process. It should be used as a first step in your image correction workflow to remove the 13 problems created by digital cameras, specifically: under-exposure, lack of depth, lack of sharpness, lack of color vibrancy, lack of color fidelity, abnormal tint, noise, red-eye, and incorrect skin tones.

After you have used Perfectly Clear, you can then apply your creative talent to give your photos an artistic look, whether that is HDR, Black & White, soft focus, etc.

Thus you should apply the Perfectly Clear Photoshop Plug-in as a first step to your photos in Photoshop, before using other filters, plug-ins, or correction tools. If you are using raw files, please perform minimal adjustments in Adobe Camera Raw. We want to bring the photo into Photoshop with as much of the original information as possible for Perfectly Clear to work with.



Chapter 6

The Power of Presets

How to use each of the Presets and create your own

Perfectly Clear Photoshop Plug-in comes equipped with 6 pre-loaded presets (called “system presets”).

- 1. Default**
- 2. Landscape**
- 3. Portrait**
- 4. Noise Removal**
- 5. Fix Dark**
- 6. Tint Removal**

Let's look at the attributes of each profile and when we might want to use them:

1. Default

A robust preset that works excellent on a very wide variety of your photos (indoor, outdoor, flash photography, portrait, etc). The most common algorithms are turned ON: exposure, contrast (depth), sharpening (crispness), color vibrancy, and auto red-eye. You can comfortably process a large variety of photos knowing that no damage will be done to them. The below example shows a typical example:



2. Landscape

This preset is designed for outdoor shooting with no flash photography (no red-eyes) and natural sunlight. Exposure, color vibrancy, sharpening and depth will all be corrected. It will create a natural looking outdoor look, with slightly less depth than the default setting. The example below show a typical shot to use with this:



3. Portrait

The “Portrait” setting has been developed for portrait photos, weddings, and close facial shots. It will slightly smooth skin and the blemishes in the face and create a more diffused, softer picture with less contrast. It is great for accurately capturing purples (such as bride’s maid dresses and similar scenes) since cameras will capture this as blue, but we’ll correct back to the proper purple. Let’s look at the below example:



4. Noise Removal

Camera phone images tend to be noisier. Also, if you shoot using high ISO settings, or at night, then your photos will be grainier. Furthermore, as digital cameras continue to add more pixels, then the photos will tend to be noisier. Use this preset for your noisy images to apply the very powerful Stoik noise removal algorithm to remove the nasty grain and noise from your photos as shown below.



5. Fix Dark

Use this preset for those really dark photos (caused by a subject back-lit by a bright background). This preset will turbo-charge the exposure to bring out significant details. Note: this will work magic on really dark photos in revealing the details, but these photos usually also contain lots of noise which may also be made more obvious as the darkness is removed.



6. Tint Removal

Use this profile to remove abnormal tints (yellow, blue, etc.) from your photos that are caused by infrared, ultra-violet, incandescent, fluorescent or tungsten lighting:



Managing your presets

You can easily create an unlimited amount of your own special sauce for correcting photos. Simply adjust the various corrections to your desired preference, and select the “new” button located under the preset drop-down menu. Choose the name that you want to call it and optionally, enter a description that will appear in a pop-up above the preset when you move the mouse above the name.

To remove, simply select and press “remove”.

Once you’ve created a preset, you will be able to edit it by pressing the “update” button.

Chapter 7

Fine Tuning

What if I want to fine tune the corrections?

No problem!

There are a total of 10 different algorithms for you to adjust. Let's look at what each algorithm does and how to fine tune it.

1. TINT CORRECTION: algorithm description

Abnormal tint occurs in situations where the sensors of the camera have inappropriately picked up and reflected in the image excess green from fluorescent lights, or excess red from the infrared heat of a person in the image, or excess blue from ultraviolet, or excess yellow from tungsten lights.

Perfectly Clear's patent pending process will automatically remove these unwanted tints.

TINT CORRECTION: adjustments

When turned ON, this algorithm will look at each image and if there is an abnormal tint, remove it. You can adjust how much tint is removed – simply move the slider bar further to the right for more tint removal. If there is no tint, no correction will be performed and it will say “no tint detected”.



2. PERFECT EXPOSURE: algorithm description

Perfect Exposure is the most important algorithm and forms the core for all other corrections. Perfect Exposure optimizes the light exposure in every pixel. This patented approach corrects the image to emulate what the photographer and subjects saw at the time of taking the photo.

A quick note on overexposed photos: We distinguish between overexposed (which will benefit from the Perfectly Clear process) and clipped images. The clipped portions of an image are considered to be those portions that exceed 255 on the RGB spectrum. Portions of the image which meet these criteria have no data in these areas, and where this occurs Athentech doesn't hallucinate what might have been there.



PERFECT EXPOSURE: adjustments

By default, when Perfect Exposure is ON, so is Automatic Strength Selection. This means that Perfectly Clear will independently look at each photo and suggest a specific amount of exposure correction unique to that photo.

You can adjust how aggressive the Automatic Strength Selection is: Low, Medium, High. In general, a higher setting means a greater exposure correction per photo.

You can also manually grab the slider bar and adjust. This allows you to override the auto correction.

3. CONTRAST (DEPTH): algorithm description

This algorithm comes from the signal processing world (medical X-rays, for example). In X-rays, the challenge is that there are over 4,000 shades of grey in a radiograph.

However, the human eye can only detect 50 -100 shades. The result is a radiographic image that appears blurry. Perfectly Clear for Radiography optimizes the contrast in each and every pixel so that the radiographer, doctor, or surgeon can easily discern the details throughout the entire image. As image quality in radiography means the difference between life and death, it's essential that no artifacts are created and no information is deleted. We've taken this technology and retrofitted it to photography so that we can provide you with an image that is very eye-pleasing with lots of "punch & depth".



CONTRAST (DEPTH): adjustments

Since the eye perceives reality in 3-D, photographers also like lots of contrast/depth with their photos, and as such you'll notice that it is usually set as quite high (on the right side of the slider) for the presets.

Please note that a contrast of 0% does not yield the same result as turning contrast off. Also note that when you choose to increase the Contrast your photos will usually benefit by increasing the defaults of Perfect Exposure since increasing contrast creates a photo that is overall slightly darker.

For extremely dark photos, it is beneficial to turn depth "off" in order to bring out extreme details.



4. COLOR VIBRANCY: algorithm description

Perfectly Clear automatically checks and determines whether or not the capture device has captured the full vibrancy of the colors in the picture. If it hasn't, then the algorithm will automatically restore the washed out/faded colors in the photograph while always maintaining the true colors represented in the original photo. If the camera has properly captured true color, then this function will have no effect on the image.



COLOR VIBRANCY: adjustments

To enrich color vibrancy simply slide the slider bar to the right. Increasing Color Vibrancy may cause some clipping at the low end of the RGB spectrum but, it will never cause clipping at the bright end of the spectrum. Moving the slider to zero will increase the color density less and result in zero chance of clipping. You will note that on many images there is no increase in color vibrancy. This is because the camera sensors have already captured true color. There is a difference between a setting of "0" and turning the algorithm OFF.

5. DIGITAL COLOR FIDELITY: algorithm description

Digital capture devices are currently incapable of reproducing the full visual spectrum of colors the eye sees. Point any digital camera at a purple object (Laker's jersey, FedEx box, blue morning glory flower, for example) and compare the image on screen with the original purple object in front of you. What do you see? The purple object will appear blue on the screen! For example, see the two photos below – the photo on the left is an uncorrected photo directly from the digital camera. The jerseys are actually purple, but have been captured as blue by the camera. The photo on the right has been corrected with Digital Color Fidelity and correctly restores the proper purple exactly as seen by the human eyes in the real world.

Since True Color is fundamental to preserving precious memories perfectly, Athentech has partnered with Tribeca Labs to provide you with Digital Color Fidelity (“DCF”). DCF is a patent-pending process which maps untrue colors created in the camera’s imaging pipe back into the true colors seen with the human eye at the time the photograph was taken.



DIGITAL COLOR FIDELITY: adjustments

There are 2 settings that you can adjust: “Standard”, and “Vivid”. Standard will re-map to the full color spectrum of the colors that the camera failed to capture. Vivid will do the same, but will accentuate the colors. The result is a photo with more contrast, more vivid colors, and more “punch” to it. The photos below show an example between the two settings:



No corrections



Perfectly Clear (“PC”)



PC + Standard DCF



PC + Vivid DCF

6. SHARPENING: algorithm description

Perfectly Clear's proprietary sharpening is a series of very powerful and unique algorithms developed to deliver a crisp looking photo that is artifact free.

SHARPENING: adjustments

Simply select the check-box next to the "sharpen" dialog to activate and move the slider bar to the right for increased crispness and to the left for less sharpening.



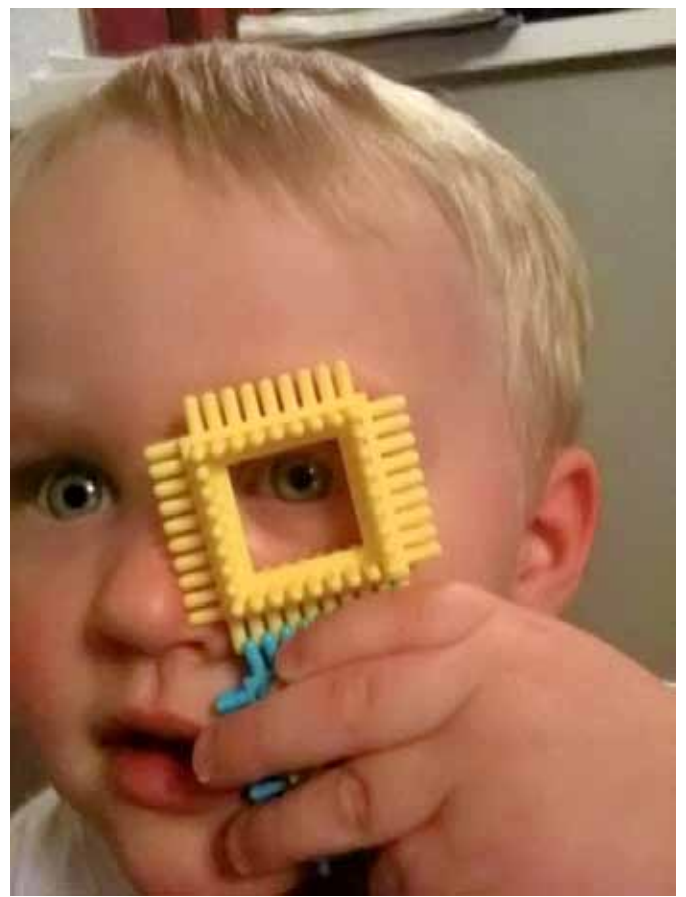
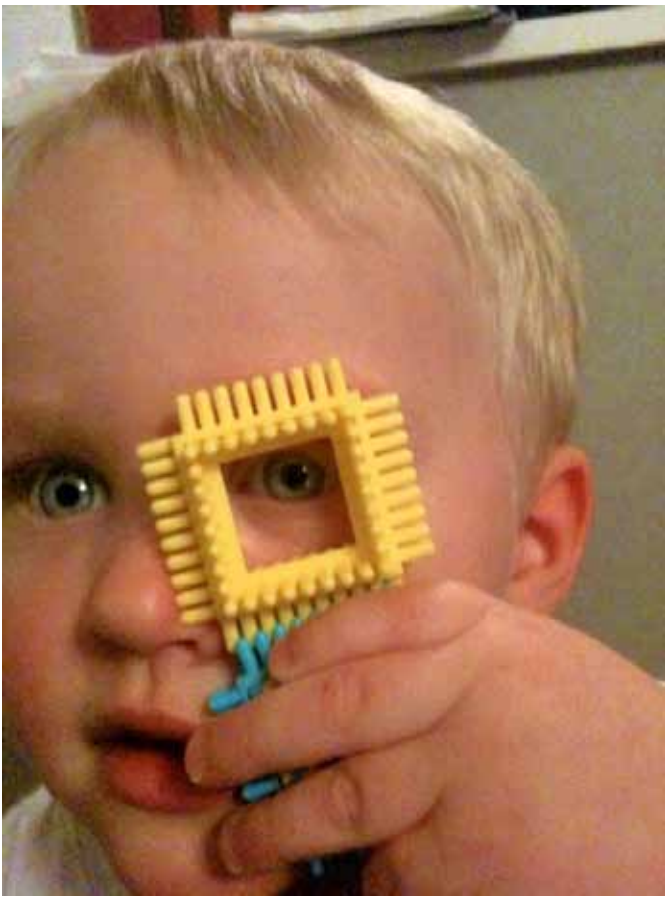
7. NOISE REMOVAL: algorithm description

Athentech has partnered with Stoik Imaging in providing you with their patent pending noise removal technology. The Stoik engine is the fastest and most effective on the market for removing high and low ISO noise in photographs, grains in scanned images, JPEG compression artifacts, Moiré pattern effects and much more.

Stoik Noise Autofix is the first photo noise reduction algorithm that allows for fully automatic operation. The algorithm will first analyze the photo to determine if noise exists, and only then apply the proper amount of noise removal. Specific algorithms and settings are applied depending on whether the photo was taken with a digital camera, camera phone, or scanner.

The algorithm includes modules of noise detection, noise analysis and noise filtration which are statistically trained to provide optimal balance between photo noise reduction and preservation of image details. Unlike other noise removal algorithms that blur photos after removing noise, the Stoik algorithm is unique in preserving the crisp details.

The noise in digital photos is reduced by 2 - 3 stops, so that the noise level of the photo shot at ISO 1600 is effectively reduced to ISO 200 - 400 levels



NOISE REMOVAL: adjustments

When noise removal is turned ON, there are 4 presets to choose:

A) Default - a robust, powerful setting for all camera corrections.

B) Camera Phone - a special engine has been added in to correct the grainy quality of most camera phone pictures

C) Night Scene - The night setting is optimized for shots where dark areas of the image are mixed with illuminated and potentially detail intensive areas. We find that the lower frequency noise is the biggest (and solvable) concern for these types of shots with potential noise blotches and color banding.

D) Portrait - The emphasis is to retain the structural and natural color composition but remove larger noise artifacts and blemishes while avoiding the over-processed, plastic look.

In addition, you can adjust the overall strength of the noise removal process by sliding the single slider bar - greater processing strength occurs the more the slider bar is to the right. Details slider bar can also adjust the amount of detail preservation.

****Please note that noise removal is the most time consuming of all of the algorithms. As such you may notice a speed hit when using this algorithm.

8. SKIN TONE CORRECTION: algorithm description

People emit Infrared Red (“IR”). Digital Camera sensors capture IR. The human eye doesn’t see IR. As a result, captured and correct photos often appear redder than they appear in the real world. This is especially true for indoor photos when taken with a flash. The Perfectly Clear Skin Tone Correction will automatically detect and remove the spurious IR from flesh tones while maintaining the proper reds in the other portion of the photo.

SKIN TONE CORRECTION: adjustments

To enable simply select and move to the right to increase the strength.



9. LIGHT DIFFUSION: algorithm description

The Light Diffusion setting has been developed for portrait photos, weddings, and close facial shots. It will smooth the blemishes in the face and create a more diffused, softer picture with less contrast. Skin tones will often be slightly warmer/redder when this algorithm is enabled.

LIGHT DIFFUSION: adjustments

To enable simply turn **ON**.



10. AUTOMATIC RED-EYE REMOVAL: algorithm description

Red-eye is caused when the camera's flash reflects off the veins in the retina at the back of the eye. In other words, what we're seeing is the subject's blood vessels. Research shows that during the winter months, as much as 30% of photos suffer from red-eye.

To solve this problem, Athentech has teamed up with FotoNation (Tessera Technologies) to include their patented technology as part of the Perfectly Clear image correction suite. Using advanced recognition techniques, the presence of red-eye is automatically detected and removed. The technology is so sophisticated that it carefully retains those important glints and sparkles in the subjects' eyes.

AUTOMATIC RED-EYE REMOVAL: adjustments

To active this algorithm, simply turn ON. Each photo will be automatically scanned and if red-eye is detected, it will be removed. If no red-eye is detected, then no red-eye will be removed.



Chapter 8

Batch Processing

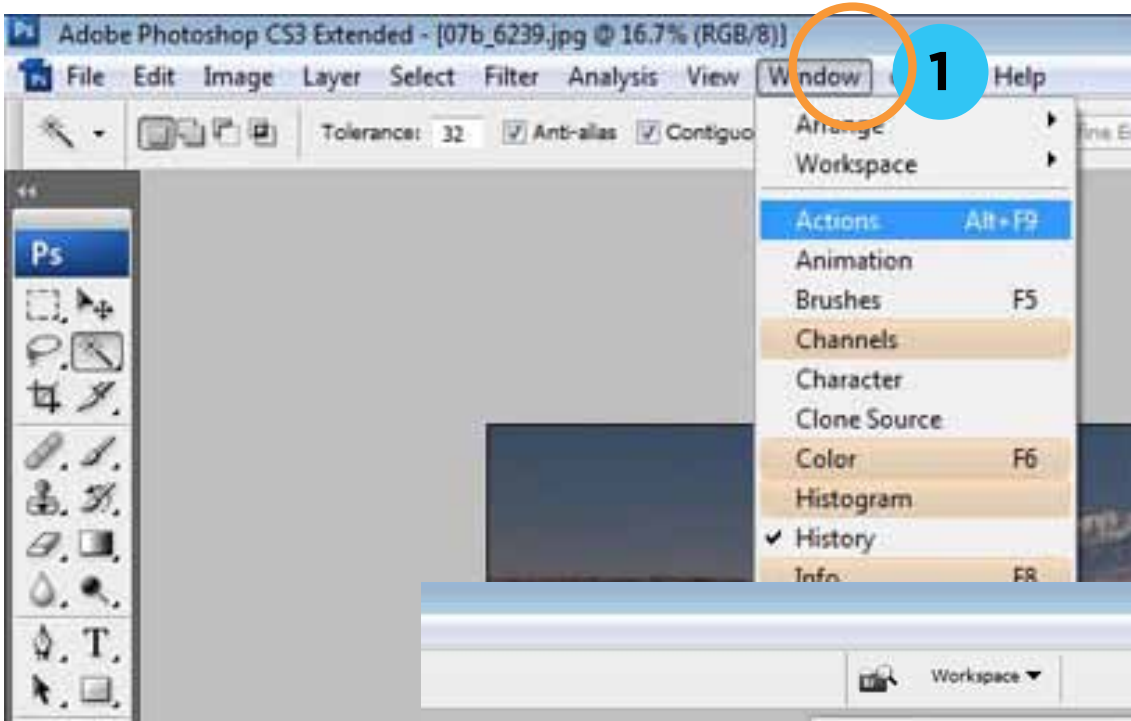
Saving you significant time

Overview

Since Perfectly Clear is designed to be a robust automatic correction solution for large volumes of images, you can use the Plug-In to accomplish this in Photoshop. It is a 2 step process:

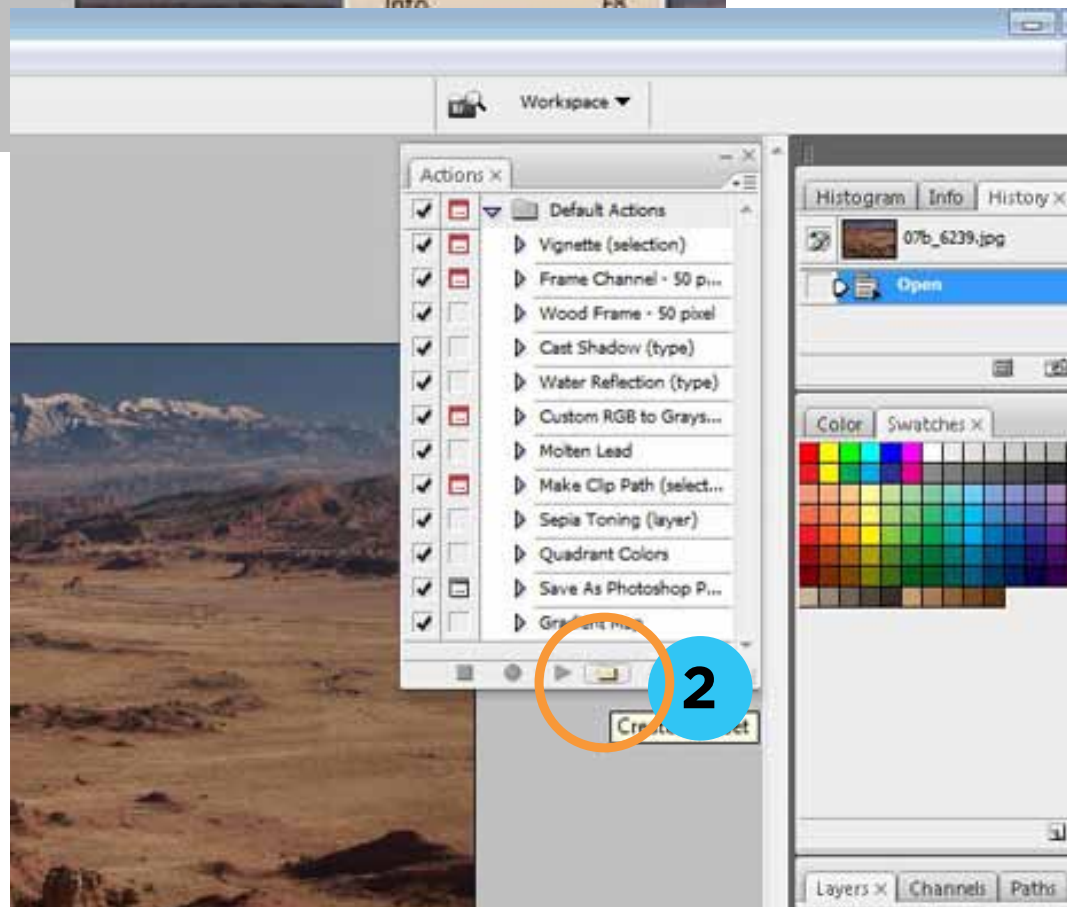
1. Create an Action for Perfectly Clear
2. Batch process images using this Action

Step 1: Creating an Action for Perfectly Clear

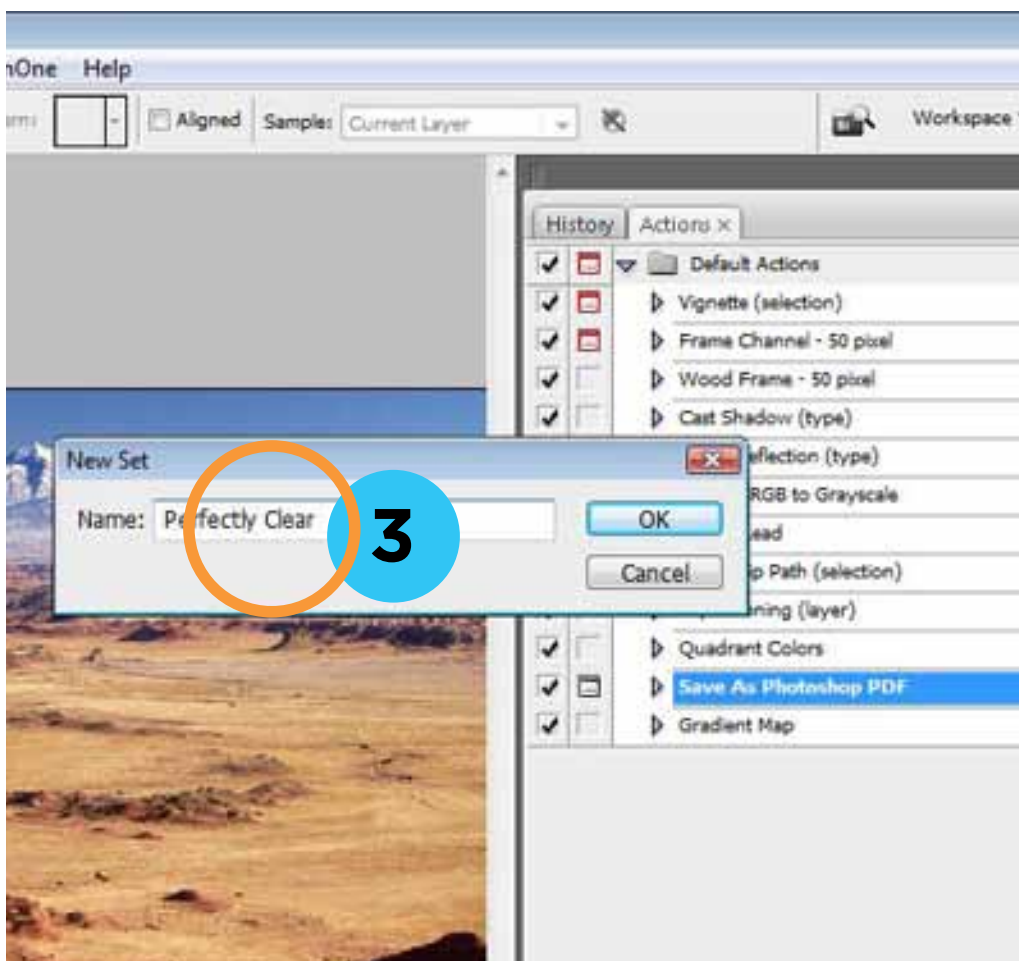


1. Open Actions
(located under
"Window/Actions")

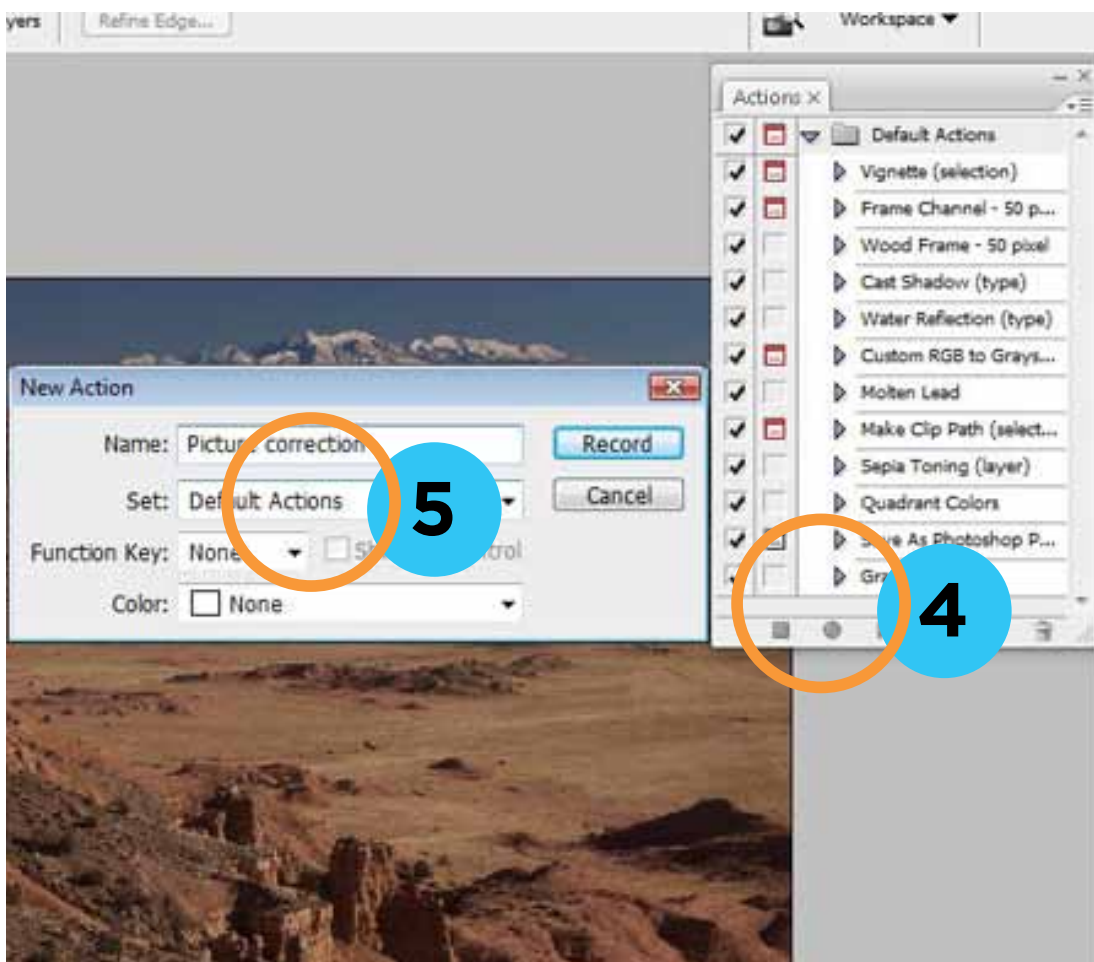
2. Press the "Create
New Set" button



3. Name your New Set (for example, “Perfectly Clear”).



4. Next select your new Set, and press the button to the right of #2 (“Create New Action”). This will create a specific action under your “Set”. You can create multiple actions (for example, a separate action could be created for each preset)

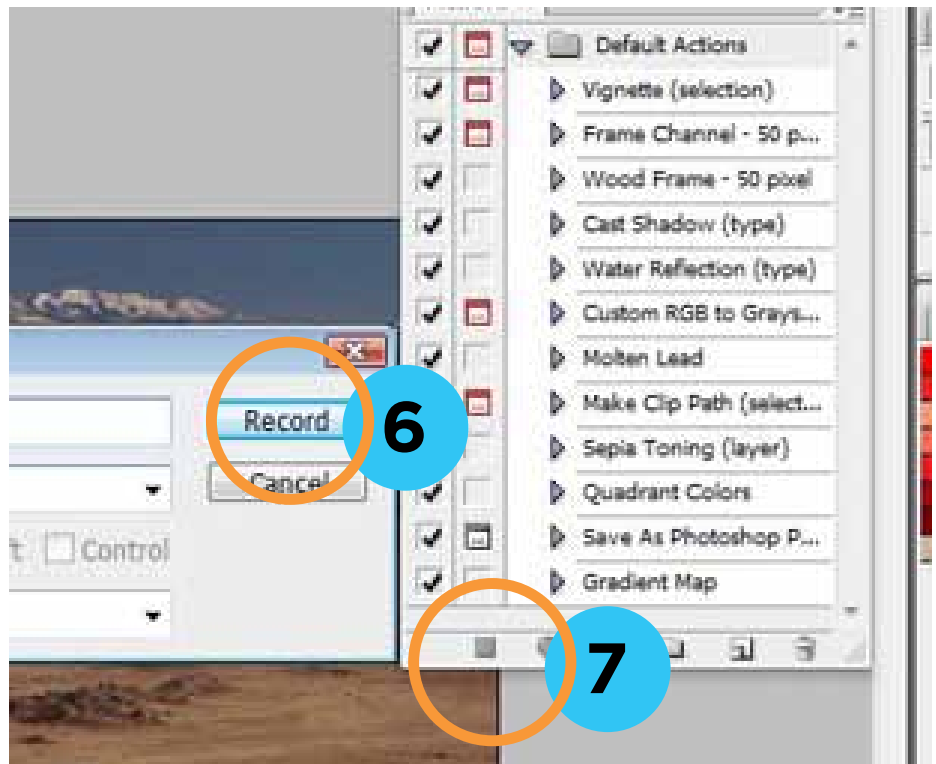


5. Name your Action

6. Press the Record button .
Photoshop will remember everything
you do from this point on.

Load the Perfectly Clear Plug-in,
select the preset you want to use
(or fine tune a photo), and press
the “okay” button.

7. Press the Stop button

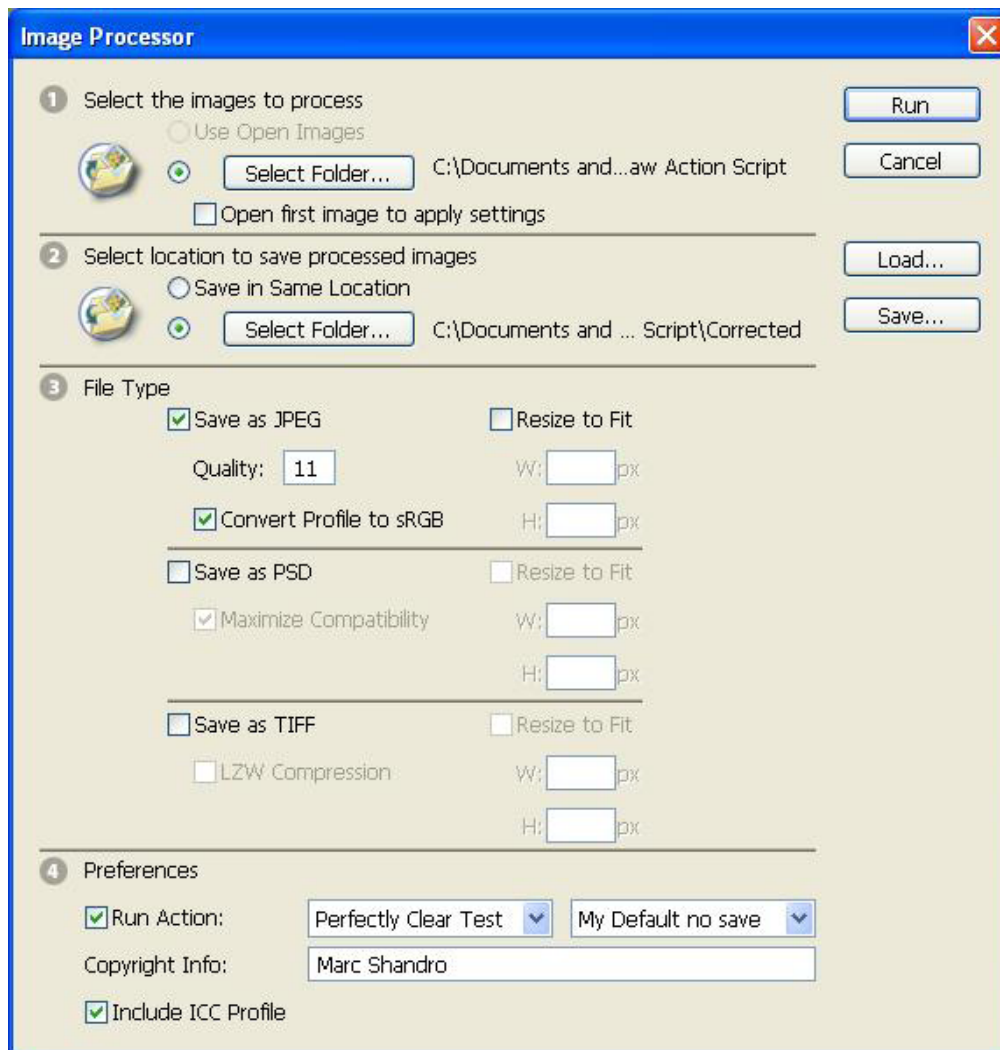


**You can now press the play button and this
Action will be performed on your photo.**

Step 2: Batch process images using your new Action

Select **File->Scripts->Image Processor**.

- 1) Select your folder of images to correct
- 2) Select your output folder where the corrected images will go
- 3) Select your output file types. (Note: Each image can be saved as multiple image formats using the checkboxes and you can also resize the images at this step if you desire)
- 4) Select your action that you made in step 1 above that will be applied to each image.



This process will open any image file in the folder that Photoshop understands. Raw files will be processed with the Adobe Camera Raw default settings before the Perfectly Clear corrections are applied. Any jpgs or tifs (etc) in the folder being processed will also be corrected by Perfectly Clear.

www.athentech.com